

CLAIMS**CONFIDENTIAL****What is claimed is:**

1. A method for representing backup activity successes and failures in a multi-leveled viewing container comprising:
 - (a) providing an extensible method for obtaining an historical record of data backup activity (and errors) and converting same into canonical format,
 - (b) providing a method for extracting and storing historical records of data backup activity from a plurality of backup devices,
 - (c) providing a relational database,
 - (d) extracting blocks of data from said relational database containing data originating from a plurality of backup engines,
 - (e) placing color-coded objects in a viewing container representing backup failures, and
 - (f) placing color-coded objects in a viewing container representing backup successes, and
 - (g) placing color-coded objects in a viewing container representing backup partial failures,
 - (h) using an object of mixed color to represent partial failure or failures,
 - (i) providing a facility for visual expansion and contraction of report data levels by the user of the invention,
 - (j) providing a mouse click request to several further levels of data relating to backup activity,
 - (k) providing a relationship between the color-coding of an object on any given level and its higher and lower levels,
- whereby a drill down visual representation of backup activity successes, failures and partial failures of data backup is made available.

2. A method of constructing backup activity billing reports from data originating on one backup engine or a plurality of backup engines comprising:
 - a. providing an extensible method for obtaining an historical record of data backup activity (and errors) and converting same into canonical format,
 - b. providing a method for extracting and storing historical records of data backup activity from a plurality of backup devices,
 - c. providing a relational data base,
 - d. extracting blocks of data from a relational database containing data originating from one or plurality of backup engines,
 - e. associating in said database specific computers with owners of said computers,
 - f. storing costs associated with backup activity,
 - g. calculating the cost of backup activities using cost per backup, and
 - h. calculating the cost of backup activities using cost per backup amount,
 - i. constructing a visual representation of backup charges based on the combination of said owners and said costs,
 - j. providing of data selection capabilities to control inclusion or exclusion of data in the report,

whereby a report of billing charges for each owner for backup activity is made available to the user of the invention.

3. A method of graphically representing backup activity, originating from a plurality of backup engines, across one or more dimensions of time comprising:
 - a. providing an extensible method for obtaining an historical record of data backup activity (and errors) and converting same into canonical format,
 - b. providing a method for extracting and storing historical records of data backup activity from a plurality of backup devices,
 - c. providing a relational data base,
 - d. providing a 3-dimensioned chart container to represent day of week on one dimension,
 - e. providing said chart container to represent hour of day on another dimension,